



Helmut-Schmidt-Universität  
Universität der Bundeswehr Hamburg  
University of the Federal Armed Forces Hamburg

Fächergruppe Volkswirtschaftslehre  
Department of Economics

Discussion Paper No.  
January 2005

**34**

# **Informal Institutions and the "Weaknesses" of Human Behavior**

**Markus Göbel & Tobias Thomas**

**DISTRIBUTION STATEMENT A**  
Approved for Public Release  
Distribution Unlimited

**20050725 059**

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE  January 2005	3. REPORT TYPE AND DATES COVERED  Discussion Paper		
4. TITLE AND SUBTITLE  Informal Institutions and the "Weaknesses" of Human Behavior			5. FUNDING NUMBERS	
6. AUTHOR(S)  Markus Goebel and Tobias Thomas				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)  UNIBW			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)  Universitaet fuer der Bundeswehr Hamburg Holstenhofweg 85 D-22043 Hamburg GERMANY			10. SPONSORING/MONITORING AGENCY REPORT NUMBER  Discussion Paper No. 34, January 2005	
11. SUPPLEMENTARY NOTES  Text in German, 16 pages.				
12a. DISTRIBUTION/AVAILABILITY STATEMENT  Public Release and Copyrighted.			12b. DISTRIBUTION CODE	
ABSTRACT (Maximum 200 words)  Political reforms can be understood as the reconfiguration of formal institutions. The rational choice of formal institutions is the core topic of the New Institutional Economics research program. While bounded rationality is a core assumption of the New Institutional Economics and the reason for suboptimal behavior there, additional reference is made to the individual aspiration to intrapersonal consistency and interpersonal conformity here. These sources of a systematic deviation from the standard model of the <i>homo oeconomicus</i> result in systematic weaknesses of perception and deviations of behavior. This contribution connects shared mental models as informal institutions in the sense of North with well-established social psychological approaches and thereby leads to an integrative reflection of the insights in a stringent model framework.				
14. SUBJECT TERMS  UNIBW, German, Political reform, Human behavior, Human behavior weakness, Institutional economics, Institutions,			15. NUMBER OF PAGES	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT  UNCLASSIFIED	18. SECURITY CLASSIFICATION OF THIS PAGE  UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT  UNCLASSIFIED	20. LIMITATION OF ABSTRACT  UL	

# Informal Institutions and the “Weaknesses” of Human Behavior\*

by

MARKUS GÖBEL AND TOBIAS THOMAS

Political reforms can be understood as the reconfiguration of formal institutions. The rational choice of formal institutions is the core topic of the New Institutional Economics research program. While bounded rationality is a core assumption of the New Institutional Economics and the reason for suboptimal behavior there, additional reference is made to the individual aspiration to intrapersonal consistency and interpersonal conformity here. These sources of a systematic deviation from the standard model of the *homo oeconomicus* result in systematic weaknesses of perception and deviations of behavior. This contribution connects shared mental models as informal institutions in the sense of North with well-established social psychological approaches and thereby leads to an integrative reflection of the insights in a stringent model framework. (JEL: A 12, B 52, D 80, Z 13)

20050725 059

---

\* We would like to express our gratitude to Axel Czaya, Barbara Dluhosch, Michael Gaitanides, Justus Haucap, Maida Lena Petersitzke, André Uhde and Klaus W. Zimmermann for helpful comments.

## 1 Introduction

A complaint often heard among economists is that important economic problems of our time have been solved in theory, but that these solutions are taken into account neither in political practice nor in public opinion. Expert opinions and specialist publications are thus often left unread on officials' desks. The positioning of economics as a practical science is clearly questioned by the broad irrelevance of its policy recommendations. This *de facto* political deficit is the starting-point of the following analysis.

Proclaiming the relevance of institutions for actors' behaviors, new institutional economic approaches often focus the design of formal institutions. (BUCHANAN [1975], WILLIAMSON [1985]). This perspective has been broadened by NORTH [1990], who considers informal institutions such as social norms. Although they play a prominent role in other economic research fields such as consumption theory (NIR [2004]), social norms are less regarded to open the black box of empirical reform behavior, which is suboptimal in terms of economics.

Therefore, from an institutional economic point of view and in the tradition of North it is expedient to focus on the social psychological foundations of informal institutions (BUCHANAN [1994]). Furthermore, the connection between rational individual behavior and institutions is pronounced, without reducing institutions to constraints (DENZAU AND NORTH [1994]).

While in classical economics the *homo oeconomicus* is omniscient and decides independently, SIMON [1957] established a model in which behavior is bounded regarding both reception and processing of information. In addition to that we broaden this model with respect to the social and historical contextualization of individuals. Thereby, it is obvious that the model generated here is of particular value if the actor is socially embedded and behavior differs over time.

This contribution identifies important restraints of political reforms in the interplay between rational behavior and the institutional contextualization of individuals. Here, the rational calculation of individuals is expanded to include relevant social psychological cost-benefit categories within the economic framework. Using this integrative approach, starting-points for political practise are generated. Furthermore, it allows us to explain the broad irrelevance of scientific advice in the context of choice and reconfiguration of institutions.

New Institutional Economics often restricts its interest to the rational choice of formal institutions. This limited understanding of institutions was widened by NORTH [1990], who differentiates between codified, formal institutions (e.g., laws, regulations) and uncoded, informal institutions (e.g., customs, traditions).

Actors will prefer the option from which they hope to obtain the greatest possible net utility. If the optimal option is, at first glance, out of the institutional framework, the expected gain in utility will be seen in more relative terms, as the actor also takes into account the costs that arise if the institutional boundary is crossed. If it is crossed, sanctions will be imposed and costs arise for the individual. Often, the crossing of institutional boundaries carries with it the stigma of the eccentric, antisocial or criminal. As a result, in almost all cases the option chosen will remain within the institutional framework.<sup>1</sup> Thus, institutions mostly constitute a good approximation with regard to the variety of possible alternative options; with regard to the selection of the concrete alternative option, the primacy of individual rationalism prevails. The fact that human action does not always engender optimal results does not necessarily lead to the conclusion that this is attributable to irrationalities. "People do mistake mainly because they have incomplete information, but this does not negate the assumption of rational behaviour." (TULLOCK AND MCKENZIE [1985, 10]). If rational maximization calculation is based on incomplete or distorted information, the resulting solution will be suboptimal despite of a functioning rationality mechanism (SIMON [1957]).

As with North, rational actors or organizations act within their environment, in which – due to their limited information processing capacity – they use constructed models for the perception of reality. The perceived world is a mental model-based projection of the true world, whereas the true world corresponds to the "resisting reality" in the sense of POPPER [1973, 68]. The latter is a result of a biological-evolutionary process. Whether this mental model-based projection converges with the true world in the evolutionary process of generating knowledge or not, can not be evaluated from a human perspective (STEGMÜLLER [1984]). However, this is not necessary anyway. As long as these models are sufficient for the continuity of the human species by having been proved to be viable.

STREIT, MUMMERT AND KIWIT [1997, 688] point out that institutions "being a part of the cultural environment they also influence the individual's perception of information: It is

---

<sup>1</sup> In a few cases, human behavior also occurs beyond the institutional framework, which then causes astonishment or dismay in other people. However, the decision in favor of such behavior is also rational if the alternative option with the highest net utility is beyond the institutional framework – e.g. if personal ideas of

assumed that the human mind creates cognitive models interpreting the environment. These cognitive models act like filters and influence the perception of information."

If these subjective mental models are shared because of the common cultural background and experience of individuals, one can speak of shared mental models which are informal institutions in accordance with DENZAU AND NORTH [1994]. In this way, shared mental models affect human behavior: "In the social dimension, human behavior is related to intersubjectively shared and value-infused knowledge about 'the way things are and the way things should be'. Such knowledge is part of social structures and processes. In the cognitive dimension, human behavior is related to the value-infused knowledge of collectives of individuals." (STEIN [1997, 730])

Because they are part of actors' action situations, both formal institutions and cultural models of perception as institutions of the informal type are constituting factors of a solution to the challenging problem of how to establish efficient orders.

### 3

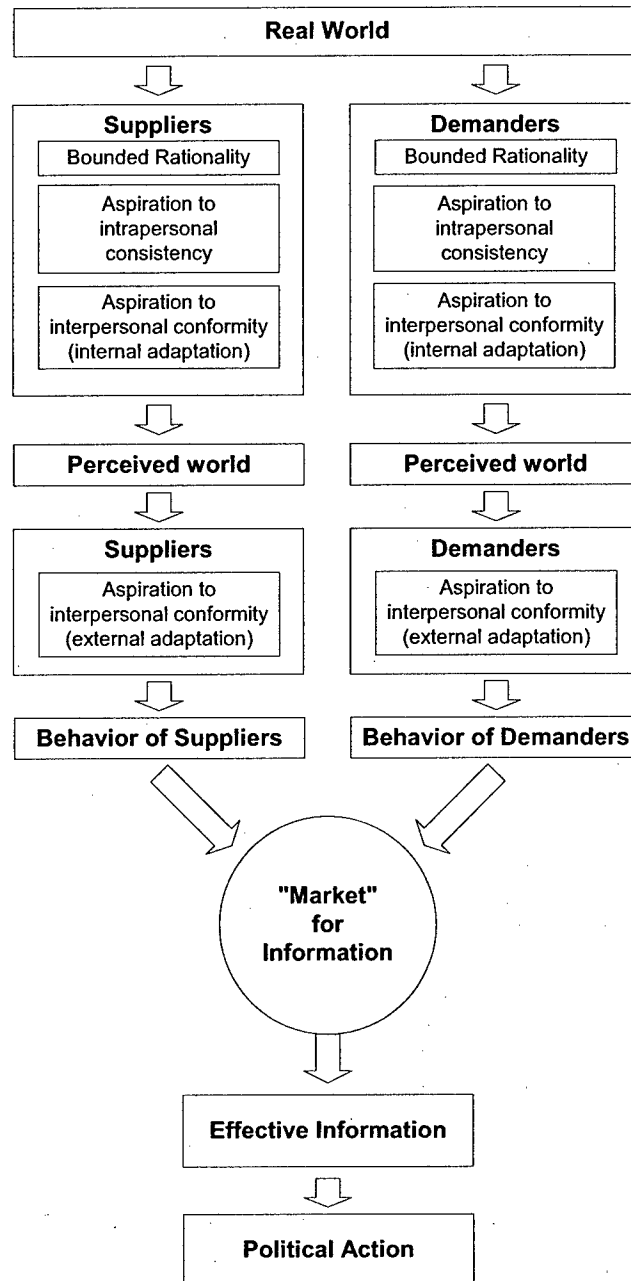
#### *On the existence of structural information deficits*

Reforms, such as the change of a pension insurance system, are nothing else than a purpose-oriented change of a formal institutional framework. However, experience shows that both the range and frequency of reform usually deviate from what would be the optimum from a classical economic perspective. Institutions are not adapted to environmental conditions, nor are actors seriously interested in further developing these institutions. Therefore, the status quo<sup>2</sup> may be referred to as a stable and suboptimal equilibrium. It is the aim of this contribution to explain why deviation from the economic standard model emerges. For this purpose, in a first step, a model of the "market" for information will be presented, within the scope of which a structural information deficit is derived. Starting from the economic standard model of human behavior, *homo oeconomicus* a step-by-step extension of the concept seems appropriate. However, primacy of the utilitarian intention of human behavior will be retained. As a result, the range and frequency of reforms are not optimal in terms of benefits.

---

morality diverge from institutionalized ones, and if an institutionally conforming behavior caused extremely high costs due to cognitive dissonance (see below).

<sup>2</sup> For example, reorganization is often no reorganization in the proper sense. Despite the resulting suboptimality changes are mostly marginal, rather than radical.



**The "market" for information**

### 3.1 *The "market" for information*

On the "market" for information, suppliers and demanders of information meet each other. The term "market" is not completely accurate, because not all market characteristics are found in this case. What is meant is the interaction between of suppliers and demanders of information. Focusing suppliers and demanders of information has been well-established since STIGLER [1961]. In our example of the reform of the social security system suppliers of information may be political advisors and politicians may be demanders of information. In favor of a greater generality we waived a concrete presentation of the actors below. Suppliers

will offer information until the utility of an additional marginal unit of information is commensurate with the marginal costs. Likewise, demanders seek to obtain information in accordance with the cost-utility calculation.<sup>3</sup> Actors on "information markets" design their supply and demand according to rational calculation.

However, KAHNEMANN AND TVERSKY [1979] as well as SIMON [1957, 1982] et al. have shown that in reality human behavior clearly deviates from the behavior forecasted in the economic standard model. But the conclusion that individuals do not calculate cost and utility of an action<sup>4</sup> is not necessarily true. In order to come to a suboptimal result, it suffices that perceived cost and utility deviate from true cost and utility. If this is the case, the calculation process itself may well be rational – the result is still suboptimal.

In fact, actors use perceived cost and utility as input factors for their rational calculation, rather than true cost and utility. But perceived and true cost and utility diverge in a systematic manner. The reception, processing and evaluation of information take place within institutionalized models of perception. Shared mental models determine, as formless institutions, the perceived information on which individual rational calculation is based. The institutional character of these models of perception thus shows that the divergence of perceived information and true information is institutional-systematic, rather than individual-chaotic DENZAU AND NORTH [1994, 3f].

Because perceived information systematically deviates from true information, the equilibrium on the "market" for information differs from what would be the optimum. This degree of information available to those involved may be referred to as effective information, because it stimulates a reaction and thus induces action. On the "market" for information, the shorter side of the market prevails, which means that information which is offered but for which there is no demand remains ineffective, and vice versa. If the state of effective information is suboptimal, the resulting range of action of the reform activity will also be suboptimal. The equilibrium on the "market" for information is stable and can thus also be described as structural; also, it is suboptimal. It is a structural information deficit.

### 3.2 *Reasons for systematic weakness of perception and deviation of behavior*

Human behavior – and thus also reform behavior – deviates from the behavior forecasted within the scope of the *homo oeconomicus* model. This deviation of behavior is the topic of this contribution. Even the Bounded Rationality concept by Simon [1957] can explain the

---

<sup>3</sup> The representation of the economic calculation shows that both a supply of all information and a demand of all information will not occur under realistic assumptions with respect to the cost and utility functions.

<sup>4</sup> Whether it takes place consciously or unconsciously does not matter here.



factual resistance to reform only to some degree. Well-established social psychological approaches, which already found consideration in economic models [AKERLOF 1982, BERNHEIM 1994], explain how perception and behavior are influenced by own attitudes and by the social environment. The model of cognitive consistency explains how people tend to reduce inconsistency between attitudes and cognitions. The model of conformity shows how social environment influence behavior by group pressure or adoption of norms [HOGG AND VAUGHAN 2002]. However, this deviation of behavior is not individual-chaotic, but at least in part follows a systematic pattern, which will be sequentially presented in the following.

### *3.2.1 Searching for information – models of bounded rationality*

In neoclassical Utopia, there is the assumption of complete information, which implies that, firstly, all information is available everywhere and at all times and, secondly, that the actors have the capability of processing it with infinite speed.

Reality, however, shows a different picture: Individuals are confronted with restrictions of their rationality with regard to both the reception of information and the processing of information. SIMON's Bounded Rationality models [1957, 1982] pay tribute to these restrictions, while maintaining an intended rationality.

If information is not readily available everywhere and at any given time, that is, if costs are incurred for receiving and processing information, the actors will take them into account in their calculations. The optimum in receiving and processing information will be achieved whenever the marginal utility of the information is equal to the marginal costs.

The costs of the reception and processing of information, however, are not the same for all kinds of information. Actors will often seek to obtain information only within their own institutional framework so that the institutional limit constitutes the restriction of their field of vision, or in other words, of their horizon. CAVALLI-SFORZA AND FELDMAN [1981] examined the horizontal transmission of informal institutions – language there. A negative correlation between the geographical distance and the identity of related glosses has been shown. The latter – because of the relatively open meaning of the related formulation – were especially suitable as an indicator of shared mental models.

It is especially with regard to information from beyond the institutional framework that the assumption of completeness will become fragile. Information within the institutional framework is relatively inexpensive and accessible; other actors are prepared to share this information, and the sources of information are known. This is why in many cases there is no processing of extrainstitutional information.

With regard to reforms, the consequences of sequential information processing are even more aggravated by the time structure of cost and utility. If major parts of the costs of a reform project are incurred at an early stage in the form of planning and implementation costs, the project's utility will often make itself felt only with the passing of time. The higher the individual discount rates of the actors are, the more the utility must surpass the costs in order for a reform project to be carried out at all. This is especially true if the time required for the positive aspects of a reform to take effect will exceed the life span of a human being. Unless they are guided by intergenerational altruism, people will fail to allow for such positive effects in their deliberations.

Possibly, the acquisition and processing of information is not even attempted and individuals behave ignorantly in rational terms, while keeping to the assumptions of economic rationality. The fact that the costs of acquisition and processing of information can, within a political system, lead to abstention from voting was described by DOWNS [1957, 207f].

The view of a bounded rationality also coincides with EUCKEN'S [1952] view, who assumed that institutions are part of the set of non-economic factors within an economic system, which leads to a narrowing of the view in terms of perspective – a structural deficit of perception.

### 3.2.2 *Searching for consistency – models of intrapersonal consistency*

Even if the information beyond the institutional framework is perceived and if sufficient processing capacity is available, it is still not sure whether information processing will be initiated. In many cases, the actor has moved within the institutional framework for a long time already, so she or he has approved or at least passively tolerated it. Established knowledge and new knowledge acquired by processing extrainstitutional information may contradict each other.

According to various approaches in the field of consistency theory, there is a need for harmonization of intrapersonal attitudes, norms and behavior. Based on HEIDER's balance theory [1946], which proclaims that individuals seek consistency between various elements of cognition, FESTINGER [1957] describes the initialization of dissonance reduction after crossing a certain threshold. In order to reduce cognitive dissonances, the individual has various options at his or her disposal, which can be classified in three groups: (1) the addition of cognitive elements, (2) the subtraction of cognitions, and (3) the reassessment of cognitions.

In their contribution, AKERLOF AND DICKENS [1982] examine the welfare effect of cognitive dissonances. It turns out that even when assuming that there is complete information and that microeconomic rationality is calculated, the existence of cognitive dissonances causes the results to deviate from those of the economic standard model.<sup>5</sup>

In the process, the behavior may well be compatible with economically rational behavior. If intrapersonal dissonances constitute negative factors in the individual's utility function – that is, if in economic jargon they are “costs” – it is possible that these costs of an additionally acquired cognition surpass its utility.

If the influence of the individual's change of action as a consequence of the cognition is small, such as the influence of an individual actor in the wide field of politics, the strategy of reducing cognitive dissonances is convenient for the individual – the acquired cognition becomes obsolete.

If newly acquired cognitions contradict established cognitions, cognitive dissonances will arise which, after crossing a threshold, lead to measures being taken to reduce such dissonances. The result of this self-initiated weakness in perception and cognition is a tendency to maintain the status quo. Thus we are dealing with a systematic distortion of perception toward the status quo<sup>6</sup>.

### 3.2.3 *Searching for conformity – models of interpersonal conformity*

Conformity<sup>7</sup> means the concordance of attitudes and behavior of an individual with the norms, values and habits of the reference group.

While cognitive dissonance means that there is an inconsistency between, for example, one's own attitudes and actions (intrapersonal dissonance), non-conforming behavior within the institutional framework is referred to as interpersonal dissonance.

Conformity can, on the one hand, be fully internalized (internal adaptation). On the other hand, group-conforming behavior can also occur without accepting the group-specific attitudes (external adaptation) if, for example, group pressure is strong enough.<sup>8</sup> The latter

---

<sup>5</sup> Thus, for example, the effect of non-informative publicity and the great popularity of the social security systems can be explained, that is, without breaking with the economic standard model of human behavior: “The explanations do not rely on the assumption that people are basically misinformed – if they believe something other than the truth, they do so by their own choice.” (AKERLOF AND DICKENS [1982, 318])

<sup>6</sup> Even if the comparison with Kahneman's status quo bias (KAHNEMANN AND KNETSCH AND THALER [1991, 197f]) suggests itself, we are in fact dealing with different phenomena. In Kahneman's writings, status quo preferences are the product of an aversion to risk, which leads to an overrating of possible future losses. Here, status quo bias is related to the aspiration to cognitive consistency.

<sup>7</sup> ARONSON [1992] offers a description of conformity from a social psychological perspective that is very worthwhile reading. Recently, in parts of economic research conformity plays an important role too (BERNHEIM [1994], CORNEO AND JEANNE [1997], HOLLÄNDER [1990]).

<sup>8</sup> KELMAN [1958] offers a more detailed description of degrees of conformity.

form describes the adaptation of behavior as a reaction to the group exerting a direct influence by giving rewards or imposing punishment. In contrast, internalization describes the adaptation of behavior because of indirect influence via the internalization of group-conforming norms and values, that is, informal institutions.

The fact that human beings seek to establish harmony is translated into more concrete action by the individual who behaves in a manner conforming to the group. Non-conforming behavior will be sanctioned by the reference group, which means costs to the individual. Whenever conforming behavior as an internal adaptation is based on an internalization of the norms and values as well as on the genesis of a shared model of perception, costs in addition to the sanction costs arise because of cognitive dissonances, as a result of which a dissonance reduction is initiated once a certain threshold has been crossed. In the latter case, the behavior is not only non-conforming, but also inconsistent. This leads to the effects of self-initialized weaknesses in perception and cognition described above.

This behavior is compatible with the economic model of human behavior if the expected sanctions and cognitive dissonances – in case they are fully internalized norms and values – are included as negative elements, that is, as follow-on costs of non-conforming behavior in the individual's utility function. If the costs of non-conforming behavior surpass the utility, which is especially probable if the impact of the individual's own actions is small, group-conforming behavior will be kept up. Consequentially individual behavior systematically converges towards group-conforming behavior; in the case of internal adaptation, this behavioral bias is based on the internalized and shared model of perception.

#### 4 *Reduction of the systematic weakness of perception and the deviation of behavior*

The perceived world does not equal the real world one-to-one, but is constructed by means of mental models. Because of the sociality of the models of perception, the deviation of the perceived and thus constructed world is not arbitrary, but partly systematic and thus calculable. This leads to the conclusion that effective measures, such as reform activities, should not only target the real world but also the cross-individual construct of the perceived world.

The "market" for information described above is the starting point for developing approaches designed to reduce the systematic weakness of perception and the deviation of behavior. If on this market a structural information deficit is caused by the behavior of suppliers and demanders, a suboptimal degree of political action – in other words, reform activity – will be the consequence, because of the action-inducing character of the information

equilibrium. If one wants the range and frequency of reform to approach an optimal degree, this will only succeed if the supplier and demander behavior on the information "market" changes.

#### *4.1 First approach: Searching for information*

One approach for influencing the behavior of suppliers and demanders of information consists of their cost-utility calculation in a stricter sense. The supplier and demander behavior on the "market" for information is in accordance with the cost-utility calculation (see above). In order to change this, the utility derived (or expected) by the actors from the respective behavior must be increased and/or its costs reduced. Because on the "market" for information the shorter side of the market prevails, it might be worthwhile analyzing what the cause of a suboptimal degree of information is. Possible causes may be on the side of suppliers, of demanders, or of suppliers and demanders.

Allowing for the individual's bent for utilitarianism, the supplier's behavior may, in this context, aim to increase the individual's social status as a reformer or man of action in the social environment or in the eyes of the general public. To the initiating actors, a successful reform often constitutes the rare opportunity for making a leap in their careers, or even for going down in history.

Costs on the suppliers' side can occur through the production and distribution of communicationally viable information. Also, the opportunity costs of the information on offer are to be taken into account if providing such information is a time-consuming effort.

The demanders' behavior is also based on the economic cost-utility calculation. Demanders draw their benefit from information if, on the one hand, they can improve their social status within the social environment, or, on the other hand, if they can draw a direct financial benefit from being informed. It is important to increase this utility, just as it is to reduce the cost of receiving and processing information.

#### *4.2 Second approach: Searching for consistency*

Another approach for overcoming information resistances deals with the actors' striving for consistency. Both the suppliers and demanders of information seek to achieve intrapersonal consistency. However, new information may, under certain circumstances, contradict consistent cognitions some of which may have existed for a long time already. If so, cognitive dissonances – which may also be interpreted as costs – may occur, and if they exceed a certain threshold, measures for reducing them will be initiated.

If for years a politician, being a supplier of information, pursues a certain policy, advocating a reform project that conflicts with this previous policy would contradict his seeking to maintain consistency. This problem also arises on the demanders' side if an innovative reform policy is to be received. In both cases, linking the communication of reform measures with existing consistent cognitions of citizens and politicians may be an approach for solving this problem.

If cognitive dissonances occur, it may be a feasible approach to facilitate the most favorable reduction of cognitive dissonances possible – for example, by providing further information or assisting with the reassessment of information. Referring to successful reform projects in other countries or in one's own history is an effective option.

Finally, we should point out the possibility of enhancing utility as regards the individual's striving for consistency. If there have already been cognitive dissonances prior to the information offer – if, for example, the withholding of reform options contradicts the politicians' own knowledge, or if the citizens lack information that would allow them to consistently close a cognitive gap – new information can also increase the level of consistency.

#### 4.3 *Third approach: Searching for conformity*

The last approach for selectively influencing the market behavior is the individuals' striving for interpersonal conformity. Citizens and politicians are socially contextualized and aspire to group-conforming behavior within their respective reference groups. In the case of external adaptation, this behavior is based on the fear of sanctions, while in the case of internal adaptation, it is based on fully internalized attitudes, norms and values.

This leads to the conclusion that, in order to avoid non-conformity, the communicative measures should approach the entire respective group of reference, rather than a succession of individual members. For this purpose, a reform may, under certain circumstances, be widely established through the media as a real and positively connoted policy alternative.

While conforming behavior is the consequence of fully internalized attitudes, norms and values - in other words, the consequence of internal adaptation - non-conforming behavior not only results in sanctions being imposed by the reference group but, in addition, cognitive dissonances will occur. If this is the case, the points of the approach stated in 4.2 must also be taken into account.

In accordance with North, institutions can be differentiated into formal institutions such as laws and informal institutions such as norms and shared mental models (DENZAU AND NORTH [1994]). As a matter of fact institutions limit the options of rationally acting individuals. Their perception is socially constructed by means of shared mental models.

Because of the sociality of cognitive models, individual behavior systematically deviates from the economic standard model of human behavior *homo oeconomicus*. This deviating behavior can at least in part be attributed to a systematic weakness of perception, which is, on the one hand, caused by the restriction of rationality in the sense of Simon and, on the other hand, by striving for intrapersonal consistency. In addition to the perception-induced behavior bias, behavior deviates because of the aspiration to interpersonal conformity.

While retaining the assumption of intended rationality, three cost categories are focused: information costs, cost of non-conforming behavior and cost of cognitive dissonance. This allows us to explain numerous behavioral patterns which have borne the stigma of anomalies in the neoclassical context. On one hand this *modus operandi* is associated with a trivialization of complex psychological and social psychological issues, but on the other hand it leads to the integrative consideration of insights of different scientific disciplines in a stringent model framework. Finally, this contribution demonstrates a connection between shared mental models in the sense of North's institutional economics and well-established social psychological approaches.

In contrast to our subject here, empirical evidence of social psychological categories already exists in other economic research fields such as financial research. For example GOETZMANN AND PELES [1997] analyze the impact of cognitive dissonance on mutual fund purchase decisions. Furthermore, the model approach could be developed to formalization, as BERNHEIM [1994] and CORNEO AND JEANNE [1997] have shown with reference to conformity.

This deviating behavior also emerges with the reconfiguration of formal institutions such as reforms. In our model framework reform activities are induced by effective information. The latter results from the behavior of suppliers and demanders on the "market" for information. As a result of the described weaknesses of perception and behavior the market behavior of the actors deviates from the optimum. The state of effective information and the resulting range of action of the reform activity will also be suboptimal. If one wishes the reform activity to approach an optimal degree, it is advisable to focus on the identified weaknesses of perception and behavior. The broad irrelevance of scientific policy advice

mentioned at the beginning is last but not least based on the broad non-consideration of the cost categories in the classical economic approach presented above. The consideration of these categories might be beneficial to the relevance of economic policy advice.

### References

- AKERLOF, G.A., AND W.T. Dickens [1982], "The Economic Consequences of Cognitive Dissonance," *American Economic Review*, 72, 307-319.
- ARONSON, E. [1992], *The Social Animal*, 6nd ed., Freeman: New York.
- BERNHEIM, B.D. [1994], "A Theory of Conformity," *Journal of Political Economy*, 102, 841-877.
- BUCHANAN, J.M. [1994], "Choosing what to choose," *Journal of Institutional and Theoretical Economics*, 150, 123-135.
- BUCHANAN, J.M. [1975], *The Limits of Liberty*, University of Chicago Press: Chicago.
- CAVALLI-SFORZA, L.L., AND M.W. FELDMAN [1981], *Cultural Transmission and Evolution: A Quantitative Approach*, Princeton University Press: Princeton.
- CORNEO, G., AND O. JEANNE [1997], "Conspicuous consumption, snobbism and conformism," *Journal of Public Economics*, 66, 55-71.
- DENZAU, A.T., AND D.C. North [1994], "Shared Mental Models: Ideologies and Institutions," *Kyklos*, 47, 3-31.
- DOWNS A. [1957], *An Economic Theory of Democracy*, Harper & Row: New York.
- EUCKEN, W. [1952], *Grundsätze der Wirtschaftspolitik*, Franck et al: Tübingen.
- FESTINGER, L.A. [1957], *A Theory of Cognitive Dissonance*, Stanford University Press: Stanford.
- GOETZMANN, W.N., AND N. PELES [1997], "Cognitive Dissonance and Mutual Fund Investors," *Journal of Financial Research*, 20, 145-158.
- GROENEWEGEN, J., F. KERSTHOLT, AND A. NAGELKERKE [1995], "On Integrating New and Old Institutionalism: Douglass North Building Bridges," *Journal of Economic Issues*, 29, 467-475.
- HEIDER, F. [1946], "Attitudes and Cognitive Organizations," *Journal of Psychology*, 21, 107-112.
- HOGG, M.A., AND VAUGHAN, G.M. [2002], *Social Psychology*, 3<sup>rd</sup> ed, Pearson: Harlow, et al.



- HOLLÄNDER, H. [1990], "A Social Exchange Approach to Voluntary Cooperation," *American Economic Review*, 80, 1157-1167.
- KAHNEMANN, D., J.L. KNETSCH, AND R.H. THALER [1991], "The Endowment Effect, Loss Aversion, and Status Quo Bias," *Journal of Economic Perspectives*, 5, 193-206.
- KAHNEMANN, D., AND A. TVERSKY [1979], "Prospect Theory: An Analysis of Decision under Risk," *Econometrica*, 47, 263-291.
- KELMAN, H.C. [1958], "Compliance, Identification and Internalisation: Three Processes of Attitude Change," *Journal of Conflict Resolution*, 2, 51-60.
- NIR, A. [2004], "A behavioural model a consumption patterns: The effects of cognitive dissonance and conformity", Working Paper, Center for Economic Research, University of Tiburg.
- NORTH, D.C. [1990], *Institutions, institutional change and economic performance*, Cambridge University Press: Cambridge et al.
- POPPER, K.R. [1973], *Objective Knowledge*, Oxford University Press: London et al.
- SIMON, H.A. [1982], *Models of Bounded Rationality*, Vol 2, MIT Press: Massachusetts.
- SIMON, H.A. [1957], *Models of Man. Social and Rational.*, John Wiley and Sons: New York.
- STEGMÜLLER, W. [1984], "Evolutionäre Erkenntnistheorie, Realismus und Wissenschaftstheorie," pp 5-35 in: R. Spaemann / P. Koslowski and R. Löw (eds.), *Evolutionstheorie und menschliches Selbstverständnis*, Acta humaniora: Weinheim.
- STEIN, J. [1997], "How Institutions Learn: A Socio-Cognitive Perspective," *Journal of Economic Issues*.
- STIGLER, G.J. [1961], "The Economics of Information," *Journal of Political Economy*, 69, 213-225.
- STREIT, M., U. MUMMERT, AND D. KIWIT [1997], "Views and Comments on Cognition, Rationality, and Institutions," *Journal of Institutional and Theoretical Economics*, 153, 688-692.
- TULLOCK, G., AND R.B. MCKENZIE [1985], *The World of New Economics*, Richard D. Irwin: Homewood.
- WILLIAMSON, O.E. [1985], *The Economic Institutions of Capitalism*, Free Press: New York.

Dr. Markus Göbel  
Institut für Logistik und Organisation  
Helmut-Schmidt-Universität  
Holstenhofweg 85  
22043 Hamburg  
Email: [Markus.Goebel@hsu-hh.de](mailto:Markus.Goebel@hsu-hh.de)

Dipl.-Vw. Tobias Thomas  
Institute of Public Finance  
Helmut-Schmidt-Universität  
Holstenhofweg 85  
22043 Hamburg  
Email: [Tobias.Thomas@hsu-hh.de](mailto:Tobias.Thomas@hsu-hh.de)

**Bisher erschienen:**

**Diskussionspapiere der Fächergruppe Volkswirtschaftslehre**

- Göbel, Markus & Tobias Thomas, Informal Institutions and the “Weaknesses” of Human Behavior, No. 34 (January 2005).
- Dewenter, Ralf & Justus Haucap, Estimating Demand Elasticities for Mobile Telecommunications in Austria, No. 33 (Dezember 2004).
- Meyer, Dirk, Die Entmachtung der Politik: Zur Frage der Überlebensfähigkeit demokratischer Nationalstaaten in einer globalisierten Weltwirtschaft, Nr. 32 (Dezember 2004).
- Josten, Stefan Dietrich & Klaus W. Zimmermann, Unanimous Constitutional Consent and the Immigration Problem, No. 31 (Dezember 2004).
- Bleich, Torsten, Importzoll, Beschäftigung und Leistungsbilanz: ein mikrofundierter Ansatz, Nr. 30 (September 2004).
- Dewenter, Ralf, Justus Haucap, Ricardo Luther & Peter Rötzel, Hedonic Prices in the German Market for Mobile Phones, No. 29 (August 2004).
- Carlberg, Michael, Monetary and Fiscal Policy Interactions in the Euro Area, No. 28 (März 2004).
- Dewenter, Ralf & Justus Haucap, Die Liberalisierung der Telekommunikationsbranche in Deutschland, Nr. 27 (März 2004), erscheint in: *Zeitschrift für Wirtschaftspolitik* 53, 2004.
- Kruse, Jörn, Ökonomische Konsequenzen des Spitzensports im öffentlich-rechtlichen und im privaten Fernsehen, Nr. 26 (Januar 2004).
- Haucap, Justus & Jörn Kruse, Ex-Ante-Regulierung oder Ex-Post-Aufsicht für netzgebundene Industrien?, Nr. 25 (November 2003), erschienen in *Wirtschaft und Wettbewerb* 54, 2004, 266-275.
- Haucap, Justus & Tobias Just, Der Preis ist heiß. Aber warum? Zum Einfluss des Ökonomie-studiums auf die Einschätzung der Fairness des Preissystems, Nr. 24 (November 2003), erscheint in *Wirtschaftswissenschaftliches Studium (WiSt)* 33, 2004.
- Dewenter, Ralf & Justus Haucap, Mobile Termination with Asymmetric Networks, No. 23 (October 2003).
- Dewenter, Ralf, Raising the Scores? Empirical Evidence on the Introduction of the Three-Point Rule in Portugese Football, No. 22 (September 2003).
- Haucap, Justus & Christian Wey, Unionisation Structures and Innovation Incentives, No. 21 (September 2003), erschienen in: *The Economic Journal* 114, 2004, C145-C165.
- Quitzau, Jörn, Erfolgsfaktor Zufall im Profifußball: Quantifizierung mit Hilfe informations-effizienter Wettmärkte, Nr. 20 (September 2003).
- Reither, Franco, Grundzüge der Neuen Keynesianischen Makroökonomik, Nr. 19 (August 2003), erscheint in: *Jahrbuch für Wirtschaftswissenschaften*.
- Kruse, Jörn & Jörn Quitzau, Fußball-Fernsehrechte: Aspekte der Zentralvermarktung, Nr. 18 (August 2003).

- Bühler, Stefan & Justus Haucap, Mobile Number Portability, No. 17 (August 2003), erscheint in: *Journal of Industry, Competition and Trade* 4, 2004.
- Zimmermann, Klaus W. & Tobias Just, On the Relative Efficiency of Democratic Institutions, No. 16 (July 2003).
- Bühler, Stefan & Justus Haucap, Strategic Outsourcing Revisited, No. 15 (July 2003).
- Meyer, Dirk, Die Energieeinsparverordnung (EnEV) - eine ordnungspolitische Analyse, Nr. 14 (Juli 2003).
- Zimmermann, Klaus W. & Tobias Thomas, Patek Philippe, or the Art to Tax Luxuries, No. 13 (June 2003).
- Dewenter, Ralf, Estimating the Valuation of Advertising, No. 12 (June 2003).
- Otto, Alkis, Foreign Direct Investment, Production, and Welfare, No. 11 (June 2003).
- Dewenter, Ralf, The Economics of Media Markets, No. 10 (June 2003).
- Josten, Stefan Dietrich, Dynamic Fiscal Policies, Unemployment, and Economic Growth, No. 9 (June 2003).
- Haucap, Justus & Tobias Just, Not Guilty? Another Look at the Nature and Nurture of Economics Students, No. 8 (June 2003).
- Dewenter, Ralf, Quality Provision in Interrelated Markets, No. 7 (June 2003).
- Bräuninger, Michael, A Note on Health Insurance and Growth, No. 6 (June 2003).
- Dewenter, Ralf, Media Markets with Habit Formation, No. 5 (June 2003).
- Haucap, Justus, The Economics of Mobile Telephone Regulation, No. 4 (June 2003).
- Josten, Stefan Dietrich & Achim Truger, Inequality, Politics, and Economic Growth. Three Critical Questions on Politico-Economic Models of Growth and Distribution, No. 3 (June 2003).
- Dewenter, Ralf, Rational Addiction to News?, No. 2 (June 2003).
- Kruse, Jörn, Regulierung der Terminierungsentgelte der deutschen Mobilfunknetze?, Nr. 1 (Juni 2003).

#### **Frühere Diskussionsbeiträge zur Wirtschaftspolitik**

- Bräuninger, Michael & Justus Haucap, Das Preis-Leistungs-Verhältnis ökonomischer Fachzeitschriften, Nr. 120 (2002), erschienen in: *Schmollers Jahrbuch* 123, 2003, S. 285-305.
- Kruse, Jörn, Competition in Mobile Communications and the Allocation of Scarce Resources: The Case of UMTS, Nr. 119 (2002), erscheint in: Pierre Buigues & Patrick Rey (Hg.), *The Economics of Antitrust and Regulation in Telecommunications*, Edward Elgar: Cheltenham 2004.
- Haucap, Justus & Jörn Kruse, Predatory Pricing in Liberalised Telecommunications Markets, Nr. 118 (2002), erschienen in: Christian von Hirschhausen, Thorsten Beckers & Kay Mitusch (Hrsg.), *Trends in Infrastructure Regulation and Financing*, Edward Elgar: Cheltenham 2004.
- Kruse, Jörn, Pay-TV versus Free-TV: Ein Regulierungsproblem?, Nr. 117 (2002), erscheint in: Mike Friedrichsen (Hg.), *Kommerz - Kommunikation - Konsum. Zur Zukunft des Fernsehens in konvergierenden Märkten*, 2003.

- Kruse, Jörn, Regulierung der Verbindungsnetzbetreiberauswahl im Mobilfunk, Nr. 116 (2002), als Kurzform erschienen in: *Multimedia und Recht*, Januar 2003, S. 29-35.
- Haucap, Justus & Jörn Kruse, Verdrängungspreise auf liberalisierten Telekommunikationsmärkten, Nr. 115 (2002), erscheint in: *Perspektiven der Wirtschaftspolitik* 5, 2004.
- Haucap, Justus & Helmmar Schmidt, Kennzeichnungspflicht für genetisch veränderte Lebensmittel: Eine ökonomische Analyse, Nr. 114 (2002), erschienen in: *Zeitschrift für Wirtschaftspolitik* 53, 2002, S. 287-316.
- Kruse, Jörn & Jörn Quitzau, Zentralvermarktung der Fernsehrechte an der Fußball-Bundesliga, Nr. 113 (2002), erschienen in: *Zeitschrift für Betriebswirtschaft, Ergänzungsheft zur Sportökonomie*, 2002, S. 63-82.
- Kruse, Jörn & Justus Haucap, Zuviel Wettbewerb in der Telekommunikation? Anmerkungen zum zweiten Sondergutachten der Monopolkommission, Nr. 112 (2002), erschienen in: *Wirtschaftsdienst* 82, 2002, S. 92-98.
- Bräuninger, Michael & Justus Haucap, What Economists Think of Their Journals and How They Use Them: Reputation and Relevance of Economics Journals, Nr. 111 (2002), erschienen in *Kyklos* 56, 2003, S. 175-197.
- Haucap, Justus, Telephone Number Allocation: A Property Rights Approach, Nr. 110 (2001), erschienen in: *European Journal of Law and Economics* 15, 2003, S. 91-109.
- Haucap, Justus & Roland Kirstein, Government Incentives when Pollution Permits are Durable Goods, Nr. 109 (2001), erschienen in: *Public Choice* 115, 2003, S. 163-183.
- Haucap, Justus, Konsum und soziale Beziehungen, Nr. 108 (2001), erschienen in: *Jahrbuch für Wirtschaftswissenschaften* 52, 2001, S. 243-263.
- Bräuninger, Michael & Justus Haucap, Was Ökonomen lesen und schätzen: Ergebnisse einer Umfrage, Nr. 107 (2000), erschienen in: *Perspektiven der Wirtschaftspolitik* 2, 2001, S.185-210.
- Haucap, Justus, Uwe Pauly & Christian Wey, Collective Wage Setting When Wages Are Generally Binding: An Antitrust Perspective, Nr. 106 (2000), erschienen in: *International Review of Law and Economics* 21, 2001, S. 287-307.
- Haucap, Justus, Selective Price Cuts and Uniform Pricing Rules in Network Industries, Nr. 105 (2000), erschienen in: *Journal of Industry, Competition and Trade* 3, 2003, 269-291.
- Bräuninger, Michael, Unemployment Insurance, Wage Differentials and Unemployment, Nr. 104 (2000) erschienen in: *Finanzarchiv* 75, 2000, S. 485-501.
- Kruse, Jörn, Universaldienstlast etablierter Postunternehmen, Nr. 103 (2000) erschienen in: *Zeitschrift für Betriebswirtschaft, Ergänzungsheft* 3, 2002, S. 99-117.
- Kruse, Jörn, Sportveranstaltungen als Fernsehware, Nr. 102 (2000) erschienen in: Schellhaaß, Horst-Manfred (Hg.), *Sportveranstaltungen zwischen Liga- und Medien-Interessen*, Hofmann: Schorndorf 2000, S. 15-39.

### **Frühere Diskussionsbeiträge aus dem Institut für Theoretische Volkswirtschaftslehre**

- Bräuninger, Michael, Social Capital and Regional Mobility, Nr. 4/2002.
- Schäfer, Wolf, EU-Erweiterung: Anmerkungen zum Balassa-Samuelson-Effekt, Nr. 3/2002, erschienen in: Stefan Reitz (Hg.): *Theoretische und wirtschaftspolitische Aspekte der internationalen Integration*, Duncker & Humblot: Berlin 2003, S. 89-98.
- Bräuninger, Michael, The Budget Deficit, Public Debt and Endogenous Growth, Nr. 2/2002.
- Rösl, Gerhard, Die Umverteilung der Geldschöpfungsgewinne im Eurosystem: Das Earmarking-Verfahren seit dem 1.1.2002, Nr. 1/2002, als Kurzform erschienen in: *Wirtschaftsdienst* 82, 2002, S.352-356.
- Schniewindt, Sarah, Two-Way Competition in Local Telecommunication Networks, Nr. 2/2001.
- Reither, Franco, Optimal Monetary Policy when Output Persists: On the Equivalence of Optimal Control and Dynamic Programming, Nr. 1/2001.
- Schäfer, Wolf, MOEL-Wechselkursarrangements, Nr. 1/2000, erschienen in: Günther Engel & Peter Rühmann (Hg.): *Geldpolitik und Europäische Währungsunion*, Göttingen 2000, S. 217-228.
- Heppke, Kirsten, On the Existence of the Credit Channel in Poland, Nr. 8/1999.
- Bräuninger, Michael, Unemployment and International Lending and Borrowing in an Overlapping Generations Model, Nr. 8/1999.
- Henning, Andreas & Wolfgang Greiner, Organknappheit im Transplantationswesen - Lösungsansätze aus ökonomischer Sicht, Nr. 7/1999.
- Chung, Un-Chan, East Asian Economic Crisis - What is and What Ought to be Done: The Case of Korea, Nr. 6/1999, erschienen in: *Research in Asian Economic Studies* 10, 2002, S. 93-121.
- Carlberg, Michael, Europäische Währungsunion: Der neue Policy Mix, Nr. 5/1999, erschienen in *Wirtschaftswissenschaftliches Studium (WiSt)* 29(1), 2000, S. 8-13.
- Carlberg, Michael, European Monetary Union: The New Macroeconomics, Nr. 4/1999, erschienen in: Gerhard Rübel (Hg.), *Real and Monetary Issues of International Economic Integration*, Duncker & Humblot: Berlin 2000, S. 155-175.
- Bräuninger, Michael & J.-P. Vidal, Private versus Financing of Education and Endogenous Growth, Nr. 3/1999, erschienen in: *Journal of Population Economics* 13, 2000, S. 387-401.
- Reither, Franco, A Monetary Policy Strategy for the European Central Bank, Nr. 2/1999 erschienen in: Rolf Caesar & Hans-Eckart Scharrer (Hg.), *European Economic and Monetary Union: Regional and Global Challenges*, Nomos Verlag: Baden-Baden 2001, S. 213-226.
- Bräuninger, Michael, Wage Bargaining, Unemployment and Growth, Nr. 1/1999 erschienen in: *Journal of Institutional and Theoretical Economics* 156, 2000, S. 646-660.

### Frühere Diskussionsbeiträge zur Finanzwissenschaft

- Josten, Stefan, Crime, Inequality, and Economic Growth. A Classical Argument for Distributional Equality, 2002, erschienen in: *International Tax and Public Finance* 10, 2003, S. 435-452.
- Zimmermann, Klaus W. & Tobias Thomas, Öffentliche Güter, natürliche Monopole und die Grenze marktlicher Versorgung, 2002, erschienen in: *Wirtschaftswissenschaftliches Studium (WiSt)* 32, 2003, S. 340-344.
- Holm-Müller, Karin & Klaus W. Zimmermann, Einige Anmerkungen zur Internalisierungsstrategie mit dem produktorientierten Konzept der Pigousteuer, 2002, erschienen in: *Zeitschrift für Umweltpolitik und Umweltrecht* 25, 2002, S. 415-420.
- Josten, Stefan, Nationale Schuldenpolitik in der EWU, 2002, erschienen in: *Wirtschaftsdienst* 82, 2002, S. 219-225.
- Hackmann, Johannes, Der Sonderabgabenbezug nach dem Lebenspartnerschaftsergänzungsgesetz, 2002, erschienen in: *Wirtschaftsdienst*, 82, 2002, S. 241-248.
- Josten, Stefan, Das Theorem der Staatsschuldneutralität. Eine kritisch-systematische Rekonstruktion, 2001, erschienen in: *Jahrbuch für Wirtschaftswissenschaften* 53, 2002, S. 180-209.
- Zimmermann, Klaus W., Komplikationen und Fallstricke in der Pigou-Analyse von Externalitäten, 2001, erschienen in: *Jahrbuch für Wirtschaftswissenschaften* 53, 2002, S. 245-267
- Josten, Stefan, National Debt in an Endogenous Growth Model, 2001, erschienen in: *Jahrbuch für Wirtschaftswissenschaften* 53, 2002, S. 107-123.
- Hackmann, Johannes, Vom Ehegattensplitting zum Partnerschaftssplitting?, 2001, erschienen in: Volker Arnold (Hg.), *Wirtschaftsethische Perspektiven VI*, Schriften des Vereins für Socialpolitik 228/VI, Ducker & Humblot: Berlin 2002, S. 189-222.
- Zimmermann, Klaus W. & Tobias Just, Politische Glaubwürdigkeit und der Euro: Eine verfassungsökonomische Perspektive, 2000, erschienen in: Fritz Söllner & Arno Wilfert (Hg.), *Die Zukunft des Steuer- und Sozialstaates*, Physica Verlag 2001, S. 373-397.
- Josten, Stefan, National Debt, Borrowing Constraints, and Human Capital Accumulation in an Endogenous Growth Model, 2000, erschienen in: *FinanzArchiv* 58, 2001, S. 317-338.
- Zimmermann, Klaus W. & Tobias Just, The Euro and Political Credibility in Germany, 2000, erschienen in: *Challenge* 44, 2001, S. 102-120
- Josten, Stefan, Public Debt Policy in an Endogenous Growth Model of Perpetual Youth, 1999, erschienen in *FinanzArchiv* 57, 2000, S. 197-215.
- Zimmermann, Klaus W., Internalisierung als Nirwana-Kriterium der Umweltpolitik, 1999, erschienen in: Kilian Bizer, Bodo Linscheidt & Achim Truger (Hg.), *Staatshandeln im Umweltschutz. Perspektiven einer institutionellen Umweltökonomik*, Duncker & Humblot: Berlin 2000.
- Hackmann, Johannes, Die unterlassene Besteuerung der Nutzungswerte selbstgenutzten Wohnungseigentums: Vergebene Reformpotentiale, 1999, erschienen in: R. Lüdeke, W. Scherf & W. Steden (Hg.), *Wirtschaftswissenschaft im Dienste der Verteilungs-, Geld- und Finanzpolitik*, Festschrift für A. Oberhauser, Berlin 2000, S. 387-412.

- Zimmermann, Klaus W. & Tobias Just, Interest Groups, Referenda, and the Political Process: On the Efficiency of Direct Democracy, 1999, erschienen in: *Constitutional Political Economy* 11, 2000, S. 147-163.
- Josten, Stefan, Staatsverschuldung und Wirtschaftswachstum in einem Diamond-OLG-Modell mit AK-Technologie, 1999, erschienen in: *Jahrbuch für Wirtschaftswissenschaften* 51, 2000, S. 237-254.